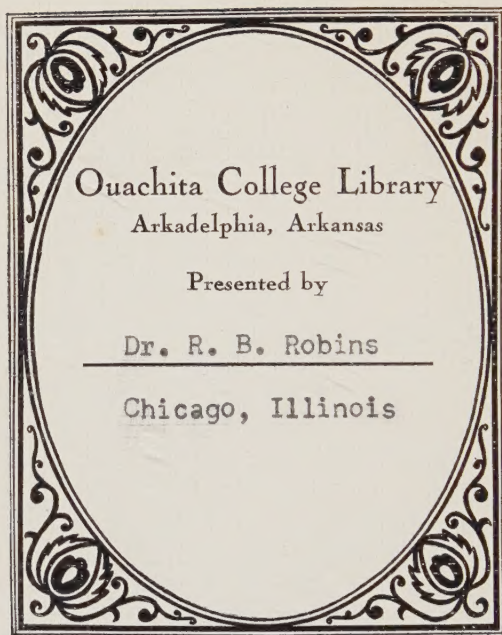


DOCTOR
AND
PATIENT

FRANCIS W. PEABODY

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TORONTO

DOCTOR AND PATIENT

*Papers on the Relationship of the Physician
to Men and Institutions*

BY

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Director of the Thorndike Memorial Laboratory;
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INTRODUCTION TO COLLECTED PAPERS OF FRANCIS W. PEABODY

THE writer of these papers, composed at different times for specific occasions, without thought at their writing, of eventual collective publication, was beloved by his friends for qualities of heart and mind that were not associated by them with his professional achievements. Yet as one thinks of him in retrospect, appraising him as a physician, one becomes more and more convinced that his great significance for American medicine sprang from those very qualities which endeared him in his personal relations, applied to and interwoven with his professional life. Intellectual and emotional sanity and integrity, from which wisdom, kindness and courtesy are derived, were the natural endowments which brought him distinction as a human being and which gave him an importance for American medicine possessed by very few of his contemporaries.

In the history of medicine there are many

names associated with the discovery of facts, with learned treatises and with technical achievements of one kind or another; there are relatively few of whom we think especially as physicians in the sense in which this word is used in regard to Suydenham, for instance. It is a rare blending of learning and humanity, incisiveness of intellect and sensitiveness of the spirit, which occasionally come together in an individual who chooses the calling of Medicine; and then we have the great physician.

His professional life fell into a period of reorganization and unparalleled expansion in the medical world in which public attention quite naturally was focused on the material phases of these changes. Fundamental to these, however, and far more permanently significant, there was an intellectual reorganization and expansion which demanded the development of new leaders who might accomplish for our generation what men like Neusser, Nothnagel, McKenzie, Osler, Delafield, Shattuck and James had accomplished for the one just past. Of these young standard-bearers of the new Medicine he had become an affectionately acknowledged leader. As he grew in maturity and authority his interests were forced,

almost in spite of himself, beyond his immediate work in laboratory and wards, into the more general problem of the relations of his profession to education, public health, sociology and, we may call it, its moral and philosophical bearing upon community life. In the educational phases of his work, the clinic which he headed at the Boston City Hospital represents a contribution to the constructive coördination of teaching, investigation and the care of the sick which solved many difficult problems and has already exerted a profound and lasting influence upon medical organization. This was his chief work at the end of his life and here he was continuing the studies which had already made him a noteworthy investigator and teacher.

But the imagination and critical faculties which had given value to his investigations were equally fertile in the more general aspects of his interests. Sought as a member of the most important scientific bodies of our country, he was capable of impersonal judgments and retained, as he would have indefinitely, that combination of the young heart and the old head in which the passage of time makes little difference and which, together, are the essentials of true understanding.

Of all his valuable contributions to the development of modern medicine, these short papers are the ones which deal most directly with the problems forced upon medicine by its own rapid development and by the increased opportunities and responsibilities which involved it with educational, social and economic changes. They deal with questions many of which are still unsolved, and their publication will serve to continue the influence of a voice that American medicine could ill afford to lose—one of clear-headedness, unsentimental idealism and the great wisdom of affectionate optimism.

HANS ZINSSER.

FRANCIS WELD PEABODY

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DOCTOR AND PATIENT

DOCTOR AND PATIENT

THE PUBLIC AND THE GENERAL PRACTITIONER

"SYSTEM and Efficiency,"—these watchwords of modern American business life, are beginning to be adopted by what used to be called the "learned professions"; and medicine, in particular, is entering a period in which "organization" and "service" seem destined to play a prominent and perhaps somewhat exaggerated rôle. The introduction of business methods and business phraseology into a profession which has hitherto been singularly free from a business atmosphere is to be explained in part by the general trend of the times, and in part by a praiseworthy attempt to give the public an opportunity to benefit more systematically from the extensive, though often complicated, advances of modern medicine. The function of the physician is no longer regarded as being limited to the care of the sick. "Health

examinations" and "preventive medicine" for instance, are phrases as well known to the layman as to the doctor, and the medical profession is very properly preparing itself to offer to the public a new type of "service," aimed, at least, at limiting the occurrence of disease. In making this broader program of usefulness available, there is every reason to believe that more and better work will be accomplished if the somewhat casual methods of many doctors are supplemented by those of the business world; but it is also of the utmost importance to remember that the experience of the centuries should neither be disregarded, nor subjected to modifications which, because they are new, may be too readily considered good. This conservative attitude applies chiefly, of course, to the age-old function of the physician in his relation to the sick. It may well be, though the question is debatable, that a new field, covering the care of the well, involves or permits something new in the relationship between doctor and patient. There may thus be some justification for the use of methods generally referred to as "putting the patient through the

Red Cross Meeting at the Tri-State Medical Association, Seattle, June, 1923.

mill," but there are already indications that the same methods applied to the care of the sick often lead to the patient's confusion rather than to his peace of mind. And after all, the patient does deserve some consideration!

Any reorganization of the medical profession that threatens the personal bond between doctor and patient is to be viewed with suspicion, even if the object appears at first sight to be more thorough and careful practice. With the exception of the relationship that one may have with a member of one's family, or with the priest, there is no human bond that is closer than that between physician and patient (or patient's family), and attempts to substitute the methods of machine or organization, be they ever so efficient, are bound to fail.

Even the most forward-looking medical man must admit that for a long time to come, the main function of the medical profession will be to heal, relieve and comfort those who are sick or in distress, and plans which are devised to readjust the relationship between doctors and laymen must be based primarily on this consideration. New needs and opportunities are to be recognized and met as well as possible, but the chief thing is to be

certain that in the name of the newer "Service" with its capital "S," nothing of the old-fashioned, modest but effective service of doctor to patient is lost. I do not intend to suggest that relations between the layman and the medical profession should remain in the future exactly as they have been in the past. It is perfectly obvious that the manifold developments which have so increased the complexity of the practice of medicine make certain readjustments necessary, but it has become correspondingly clear that we must "watch our steps." The protests of patients and their families or, to their credit, more often the muffled voice of their complaint, that they are no longer happy or contented in their relations with the medical profession are becoming more and more frequent. "I don't think my case was handled right" is a phrase very commonly heard from patients who have had a long and varied medical experience, and curiously enough one is quite apt to find that it does not refer to the actual results of treatment. The modern layman of the educated, and often of the comparatively uneducated, classes, seems to have become surprisingly well aware of the fact that specific "cures" are not available for every disease or every symptom, and he is usually re-

markably lenient in what he demands in the way of therapeutic results. His dissatisfaction has to do more with the general management of the case in which social and economic considerations are quite as important as its scientific aspects. He has attempted to get the best care, without regard to cost, and he finds that he has wasted his time and money going from one physician to another without finding anyone who can straighten out his troubles, or, what is more significant, is deeply interested in them.

One might be inclined to make little of such criticism, believing that it is the natural lot of every difficult profession, but the truth is that many of us who are in a position to hear of these experiences find that they are becoming more numerous, that they are often serious, and that the majority are quite avoidable. The difficulty seems to arise from a failure of "liaison," and at first sight it often seems as though a more highly organized medical profession might be better qualified to deal with the situation. The fact is, however, that this type of trouble may arise in exactly those cases which have been in contact with one or more of the most modern clinics, and a careful study of the circumstances makes it per-

fectly clear that the trouble arises, not from a lack of organization but from lack of personal supervision and responsibility. For some reason or other no one physician has seen the case through from beginning to end, and the patient may be suffering from the very multitude of his counselors. Of course I do not mean to infer that lack of continual personal responsibility on the part of an attending physician is the sole explanation of the failure of the patient to establish a happy relationship with the medical profession, but the observation of a great many cases in which the patient or his family have felt that the relationship was unsatisfactory, incomplete, remote and cold, makes me feel certain that it is a very common explanation. Those of us who value the high tradition which we have inherited in our profession find much pleasure in the intimate bonds that have always existed between ourselves and our patients, and if any break is threatened we must try to discover and meet its causes as early as possible.

There are unquestionably many explanations for the loosening of the bonds between doctor and patient, but I shall dwell at present on only one aspect of the situation, an aspect that involves the

point of view of the layman, and one in the correction of which the layman can play almost, if not quite, as important a part as the medical profession itself.

The layman of the older generation, who has been disappointed in his medical experience and who feels that something has been lacking in the way of warmth, sympathy and understanding of his case as a whole, is very apt to hark back to earlier days. "What we need," he says, "is a general practitioner! When I was a boy we went to see Dr. Brown if we had anything the matter with us and he always fixed us up. Nowadays there don't seem to be any general practitioners, and we visit one specialist after another, trying to find the one who happens to know about our particular ailment." Does this complaint merely represent the normal senescent yearning for those old times which always seem to have been so much better than anything that has come since, or does it rest upon some firmer basis and suggest a possible way out of our present difficulty? At any rate, the question raised is worth serious consideration. Why is it that the general practitioner is being supplemented by the specialist, and where does the responsibility for this shift in emphasis lie?

Is the further development of this trend to be regarded as desirable, either from the point of view of the public or the medical profession, and if not what can be done about it?

The fundamental factor in the present increase in specialism is without doubt the progress which has been made during the last two or three decades in the various sciences which underlie the art of medical practice. Researches in anatomy, embryology, physiology, physics, chemistry, pathology, and bacteriology have so extended our knowledge of disease processes in man that, in spite of a lengthening of the period of study, it has become quite impossible for any individual to acquire an intimate understanding of all the broad fields of modern medicine. In the four years' course of the medical school the student can get little more than an introduction into the so-called premedical sciences, and he learns of them only what is necessary to enable him to grasp the basic facts on which medical practice rests. If he is fortunate enough to be able to pursue his studies for a period of years after graduation, he naturally devotes himself to some limited phase of medicine in which he is particularly interested, and attempts to develop himself as far as possible in this di-

rection. Meanwhile it is quite impracticable for him to keep in touch with the details of other fields and he becomes, by force of circumstances if not by wish, a specialist in what is often a comparatively narrow sphere.

In an era which is so characterized by scientific progress in all directions it would be strange and unfortunate indeed if medical men should lack the instinct for intensive study or for scholarship. Primarily, and in its highest expression, specialization represents the attempt to fulfill an intellectual craving, and as such it is most desirable, both for the tone of the profession itself and for the public which depends on the profession. Such a view of the situation is, however, far from complete, and other motives, of a less disinterested nature it must be confessed explain a considerable part of the tendency of medical men to prefer specialization to general practice. Thus, for example, the life of the specialist sometimes appears to be an easier one than that of the general practitioner, for the latter has less regular hours of work and may be called to his patients at most inconvenient times. If he is successful in his calling it is true that his life can never be called his own. Many doctors whose careers were inter-

rupted by the war said, "I am not going back to continue being at the beck and call of every one by day and night. I'm going to specialize, and do an office practice." On the other hand, it must be remembered that the life of the specialist is not an easy one. His hours of work can be to a considerable extent regulated, but they are long and exacting, and, if he is worth his salt, he will run up large bills for lighting, since most of his evenings must be devoted to study in a struggle to keep abreast of the advances that are being made in his field throughout the world. Again, the financial rewards of the successful specialist are usually considerably greater than those of the general practitioner, and to some this is unquestionably the determining factor in the choice of a career. Many others, however, are but slightly influenced by either of these considerations in their preference for the limited fields of medicine, and are chiefly affected, not by the new developments in the specialties, but by the fundamentally altered circumstances which at present surround the life of general practice.

Let us approach this question by considering briefly the motives which led men of high grade

into the practice of medicine a generation ago or before specialism with all its rewards was widely developed. The motives were, in general, the earning of a livelihood, a specific interest in medical science, and, in the great majority of instances, a very real desire to be of service to one's fellow men. The chief reward was not the livelihood, which was often extremely meagre, or the satisfaction of scientific interest, but the appreciation, the love, the regard of a community. The physician was the friend and the guide of his patients who turned to him in sickness and in trouble, and he occupied a position among them which was almost unique. His was a life into which any unselfish, high-minded young man might well be drawn, and the reward was all that any man could ask for. Now there is no reason to believe that the type of man who enters the medical profession has altered. A few, of course, take it up purely as a respectable means of getting a living, but the preparation is so long, so expensive, and so laborious, the life itself is commonly known to be so exacting and the financial rewards are usually so moderate in all branches of the profession that the number of men who drift into medicine with no more definite object in view

is inconsiderable. A somewhat larger group are drawn to medicine primarily because of a love of science, much as they might be to zoölogy or to chemistry, but this, too, accounts for only a small proportion of medical students. Medical students have a crowded curriculum and work hard during their course of study, but they are not noted for being particularly studious as a class and only a very limited number enter research or teaching, the obvious outlets for those imbued with profound scientific interest. There is evidence for this in the fact that while many excellent opportunities for scientific work have recently been created in teaching and research-institutions the number of applicants qualified for the positions remain seriously low. Interest in science is thus not the compelling factor with most of the men who enter the medical profession and another motive must be sought. To those who, as teachers, watch successive classes of medical students progress in their course of study it is always striking to see how each group responds with enthusiasm when, after a year or two of laboratory study, it reaches the stage where contact with patients begins. This is what they have been working toward and waiting for. Dissecting room, microscope, chemi-

cal experiment—these were but means to prepare them for the great end which is the human relationship between the physician and the patient. It is the desire for this human relationship, with its opportunity for sympathetic intimacy and altruistic service, that remains today, as it has been through all the generations, the dominating impulse in drawing men to the study of medicine. The type of man in medicine and his fundamental ideals have not altered. He still retains the instincts that would lead him to general practice and if he does not enter general practice the reason is that he does not believe it is the most effective way to use his life. As he surveys the world about him and the opportunities before him, he finds that the specialist appears to occupy a position in the profession and in the community at large which is more dignified and more respected than that of the general practitioner. Professionally and socially the specialist is often looked up to as on a higher plane, and it is certainly neither unnatural nor discreditable for the young man to desire the career which carries with it the sincere regard of his fellows. It is this factor, rather than the wish for a life of ease or for increased income that so often prompts him to

say, "I do not want to be merely a general practitioner." It is the shift of emphasis on the relative value of the general practitioner and the specialist. Now it is probably true that the medical profession is to some extent responsible for the development of a point of view which exalts the specialist above the general practitioner. Certain trends in medical practice have tended to accentuate it, and many medical teachers and leaders, in their efforts to stimulate research and to promote progress, have laid so much stress on the importance of intensive study that students, often without any particular qualifications, have been directed toward specialized practice. But, granted the truth of this, the brunt of the responsibility for the present-day attitude toward the general practitioner depends upon the general public. It is not the manufacturer who eventually decides the value of his product, nor can any profession determine its own worth to the community. In the last analysis, the price of any article, or the significance of any calling, must depend on its importance to the world at large, and by the same token, the continued existence of the general practitioner will depend on his value to the general public, or, more accurately perhaps,

on what the public *thinks* the general practitioner is worth to it. The supply will depend on the demand.

It may be well, perhaps, to analyze a little more closely this new attitude which the lay public has assumed toward the general practitioner, and which is apparently so potent a factor in directing young physicians away from the general practice of medicine. In thousands of communities and in innumerable individual instances there has been, of course, no change at all in the old relationship between the doctor and his patient, and in the intimate and sympathetic friendship with which the counsel and service of the one are met by the gratitude and respect of the other. Throughout the country, however, and particularly in large cities and the adjacent towns, the bonds of this extremely personal relationship are rapidly breaking down because the public is tending more and more to turn in the first instance to the specialist instead of to the general practitioner. The feeling seems to be that since the specialists know so much and are the ultimate authorities it is foolish to waste time by going elsewhere. Little effort is made to cultivate a relationship with a sound general adviser. "What has happened to the

general practitioner?" someone asks, and without waiting for an answer, he runs off to visit a specialist. Whenever there is "anything" the matter, or as soon as one does not immediately recover from his disability, he seeks a specialist, not on the advice of his general practitioner, who might at least know what kind of specialist would be desirable, but on the advice of John or Mary, who had a friend who was cured of what is supposed to have been a similar complaint. In small communities the "City Specialist" wears a particularly brilliant halo, and the country physician must content himself with his lot while his patients seek expensive advice in the metropolis. If this is the situation and if the specialist is regarded with respect well-nigh akin to awe, while the general practitioner is regarded as a useful convenience when one has a cold or has overeaten, is it any wonder that so many of the better medical students wish to prepare themselves for specialism? The public does not seem to want them very seriously as general practitioners.

These are the conditions, therefore, partly inherent in the progress of medical science and partly depending on the attitude of the public

which are today determining the rapid increase of medical specialism; and we may now pass on to consider whether this trend toward specialism is really advantageous to the public itself. There can be no question, I take it, that up to a certain point, the development of specialists is not only desirable but necessary if the medical profession is to be thoroughly equipped to prevent the public from becoming sick and to restore them to health when they are suffering. Thus, for instance, in the application of the results of the most modern research in the basic sciences, both to the diagnosis and treatment of disease, it is important that the physician should be thoroughly trained in the principles of the underlying sciences if the patient is to derive the maximum benefit that medicine can confer. It is, therefore, well to have specialists in heart disease who, as students of experimental physiology and pathology, have acquired a knowledge of circulatory disturbances in animals which is subsequently of assistance in treating disease in man; to have specialists in diabetes who are at the same time competent chemists, since their experience in the laboratory is of daily help in regulating the diets of their patients; and to have

specialists in infectious diseases who have devoted years to bacteriology because their observations on the course of infections in animals and the effect of sera and vaccines on experimental infections are of practical value at the bedside. There have also been many strictly clinical advances which are the direct outcome of the intensive study of disease in man. Among these may be mentioned the modern highly refined operative procedures. The surgery of the eye, the ear, the nose and throat, or the brain, for example, involves such intricate technical methods and such a high degree of manual dexterity that it is done best by the surgeon with constant experience and practice in the same general type of operation. It is entirely reasonable that all of us prefer to have our tonsils taken out by a laryngologist and not by a general surgeon, and such specialists in medical practice must be available in every community. In another quarter, moreover, and in one which is of vital, although of less immediate concern to the layman, the need of specialists is even greater. This is the field of medical research. Our knowledge of disease has advanced so far that further progress will probably be slow, and little is to be expected except as the result of prolonged

and concentrated labor. The nuggets lying on the surface have been picked up and the hidden gold will be found only by him who digs deeply and whose training has taught him where to dig. Here is needed not only the specialist, but the specialist with that unusual gift of vision which belongs to the pioneer and which urges him beyond our present confines.

In these two fields, therefore, in research and in the application to practice of specialized knowledge or complex technical procedures, the expert is absolutely necessary, but the number of men actually needed to satisfy the demands is relatively small and, in the natural course of events, there will always be enough doctors whose intellectual interests direct them to intensive study. The lay public, therefore, need have little anxiety about having sufficient specialists to serve them. The important problem for the public is whether they still have need of encouraging the development of general practitioners. Here is the crux of the situation! Is an attitude which is bound to result in a progressive increase in the number of specialists, at the cost of a progressive decrease both in the number and quality of general practitioners, one which will ultimately be of general

benefit? In the light of the development of modern medicine, is the general practitioner an essential factor in preserving and promoting health or is he a makeshift necessary only in communities too small or too poor to support a competent corps of specialists? Can the public get along without the general practitioner? To those who are in a position to see the helpless flounderings of the unfortunates who pass from specialist to specialist the answer is very clear. Never was the sound general practitioner more important than he is today. Never was the public in need of wise, broadly trained advisers so much as it needs them today to guide them through the complicated maze of modern medicine. The extraordinary development of medical science, with its consequent diversity of medical specialism and the increasing limitations in the extent of special fields—the very factors, indeed, which are creating specialists, in themselves create a new demand, not for men who are experts along narrow lines, but for men who are in touch with many lines. The advantages to be derived from advice and treatment by specialists are entirely obvious, but the disadvantages are by no means always so clearly understood. They are inherent in the

training, however, for depth is not often combined with breadth, and the enthusiasm which makes one an expert in a limited field is frequently the very factor which prevents him from viewing a situation as a whole. The training of the specialist is in its essence intensive, and he can detect the slightest abnormality in the organ or system which constitutes his field, but man is not merely an aggregation of organs or of systems—he is first of all a human being whose proper care involves an appreciation of his body as a whole, together with the circumstances of his life. Many a sick person, after visiting a series of experts, and being treated for the abnormalities which each discovered in his own sphere, remains an invalid because none of his doctors was accustomed to look at a case as a whole. Many a patient, after going the rounds of the specialists, has found relief in mental healing or New Thought or Christian Science, because he lacked the guidance of a sound general practitioner who understood his physical condition, his nervous temperament and knew the details of his daily life. And many a patient, who on his own initiative has sought out specialists, has had minor defects accentuated so that they assumed a needless importance, and has

even undergone operations that might well have been avoided. Those who are particularly blessed with this world's goods, who want the best regardless of the cost and imagine that they are getting it because they can afford to consult as many renowned specialists as they wish, are often pathetically tragic figures as they veer from one course of treatment to another. Like ships that lack a guiding hand upon the helm, they swing from tack to tack with each new gust of wind, but get no nearer to the Port of Health because there is no pilot to set the general direction of their course.

The latest substitute for the breadth of vision of the general practitioner is that offspring of the American God of Efficiency, the Diagnostic Clinic. What a strong appeal it makes, this apparently ideal combination of a group of specialists so closely affiliated as to afford all the advantages of expert knowledge and at the same time maintain the desirable general supervision! Practically the method seems to work out about like most substitutes—sometimes well and sometimes badly. It all depends upon the men who constitute the group. At its best the patient finds himself in the hands of a wise, broadly

trained physician who handles his case personally and refers as occasion demands to intimate and trusted associates who are skilled in special fields. One man has personal supervision over the case and devotes enough time to it to grasp all of its ramifications, so that he can estimate the relative importance of the findings of the specialists on the production of the symptoms in the individual. At its worst, however, the Diagnostic Clinic is a machine, and the patient is automatically passed from one specialist to another and submitted to a series of examinations, so detailed in their nature that it would seem that nothing could be overlooked. The result is a list of so-called "diagnoses"—in reality a list of deviations from the normal, some of which may, and others of which certainly do not have any bearing on the patient's trouble. The unfortunate thing is that only too often the patient undergoes treatment for some of these unimportant conditions and at the same time, because of the lack of some one man who understands the situation as a whole, the real underlying difficulty is entirely overlooked.

The truth of the matter is that the practice of medicine is intensely personal and no system or

machine can be substituted for the personal relationship. The proper interpretation of symptoms involves not only a comprehension of the causes of symptoms but also of the person in whom the symptoms arise. Every experienced physician knows that when one of his patients complains of a pain in the stomach it is probably a very trivial matter and when another makes apparently the same complaint it is probably a very serious matter. It all depends on the type of patient, and the better the physician knows his patient the better will he be able to decide on the proper treatment. Skilled physicians, gifted with peculiar insight into human nature, can often estimate a personality with remarkable accuracy in a few minutes or even seconds, but in general the more a doctor knows of his patient's background the greater advantage he has in handling the case. That is the great advantage which the general practitioner has always possessed and still possesses. He knows the patient from childhood up—his physical health, the nervous and mental strain to which he has been subjected, the conditions of his social, business and domestic life, and, more even than this, he may have the same detailed knowledge of the patient's parents and

of the circumstances of their lives. Now all this kind of information, which is difficult to obtain except as the result of years of intimacy, has an infinitely important bearing on the question of health and disease. Not to have it is an enormous loss, and the loss falls, of course, primarily on the patient. He is the one who suffers. The only person who can really gather together this fundamental knowledge of his patients is the general practitioner.

In the trend toward specialism the pendulum is swinging too far, and it is the duty of medical educators and leaders to indicate to their students the importance of general practice and the high professional attainments that are necessary for success in it. But this alone will not suffice. In the last analysis it is the attitude of the public which will determine the careers of many of our future medical men. If the public will but realize that it can have no greater asset than a close and continued personal relationship with a wise, sound, general adviser, it may rest assured that there will always be an adequate response to the call for service. In order to get the best type of medical men to turn to general practice, however, it is necessary for the public to understand that the

qualifications for general practice are at least as high as those which are requisite for specialism, and to appreciate that the general practitioner is worthy of its respect and confidence.

THE CARE OF THE PATIENT

It is probably fortunate that most systems of education are constantly under the fire of general criticism, for if education were left solely in the hands of teachers the chances are good that it would soon deteriorate. Medical education, however, is less likely to suffer from such stagnation, for whenever the lay public stops criticizing the type of modern doctor, the medical profession itself may be counted on to stir up the stagnant pool and cleanse it of its sedimentary deposit. The most common criticism made at present by older practitioners is that young graduates have been taught a great deal about the mechanism of disease, but very little about the practice of medicine—or, to put it more bluntly, they are too “scientific” and do not know how to take care of patients.

One is, of course, somewhat tempted to question how completely fitted for his life-work the practitioner of the older generation was when he

first entered on it, and how much the haze of time has led him to confuse what he learned in the school of medicine with what he acquired in the harder school of experience. But the indictment is a serious one and it is concurred in by numerous recent graduates, who find that in the actual practice of medicine they encounter many situations which they had not been led to anticipate and which they are not prepared to meet effectively. Where there is so much smoke there is undoubtedly a good deal of fire, and the problem for teachers and for students is to consider what they can do to extinguish whatever is left of this smoldering distrust.

To begin with, the fact must be accepted that one cannot expect to become a skilful practitioner of medicine in the four or five years allotted to the medical curriculum. Medicine is not a trade to be learned but a profession to be entered. It is an ever-widening field that requires continued study and prolonged experience in close contact with the sick. All that the medical school can hope to do is to supply the foundations on which to build. When one considers the amazing progress of science in its relation to medicine during the last thirty years, and the enormous

mass of scientific material which must be made available to the modern physician, it is not surprising that the schools have tended to concern themselves more and more with this phase of the educational problem. And while they have been absorbed in the difficult task of digesting and correlating new knowledge, it has been easy to overlook the fact that the application of the principles of science to the diagnosis and treatment of disease is only one limited aspect of medical practice. The practice of medicine in its broadest sense includes the whole relationship of the physician with his patient. It is an art, based to an increasing extent on the medical sciences, but comprising much that still remains outside the realm of any science. The art of medicine and the science of medicine are not antagonistic but supplementary to each other. There is no more contradiction between the science of medicine and the art of medicine than between the science of aeronautics and the art of flying. Good practice presupposes an understanding of the sciences which contribute to the structure of modern medicine, but it is obvious that sound professional training should include a much broader equipment.

The problem that I wish to consider, therefore, is whether this larger view of the profession cannot be approached even under the conditions imposed by the present curriculum of a medical school. Can the practitioner's art be grafted on the main trunk of the fundamental sciences in such a way that there may arise a symmetrical growth, like an expanding tree, the leaves of which shall be for the "healing of the nations"?

The physician who speaks of the care of patients is naturally thinking about circumstances as they exist in the practice of medicine; but the teacher who is attempting to train medical students is immediately confronted by the fact that, even if he would, he cannot make the conditions under which he has to teach clinical medicine exactly similar to those of actual practice.

The primary difficulty is that instruction has to be carried out largely in the wards and dispensaries of hospitals rather than in the patient's home and the physician's office. Now the essence of the practice of medicine is that it is an intensely personal matter, and one of the chief differences between private practice and hospital practice is that the latter always tends to become impersonal. At first sight this may not appear

to be a very vital point, but it is, as a matter of fact, the crux of the whole situation. The treatment of a disease may be entirely impersonal; the care of a patient must be completely personal. The significance of the intimate personal relationship between physician and patient cannot be too strongly emphasized, for in an extraordinarily large number of cases both diagnosis and treatment are directly dependent on it, and the failure of the young physician to establish this relationship accounts for much of his ineffectiveness in the care of patients.

Hospitals—like other institutions founded with the highest human ideals—are apt to deteriorate into dehumanized machines, and even the physician who has the patient's welfare most at heart finds that pressure of work forces him to give most of his attention to the critically sick and to those whose diseases are a menace to the public health. In such cases he must first treat the specific disease, and there then remains little time in which to cultivate more than a superficial personal contact with the patients. Moreover, the circumstances under which the physician sees the patient are not wholly favorable to the establishment of the intimate personal relationship that

exists in private practice, for one of the outstanding features of hospitalization is that it completely removes the patient from his accustomed environment. This may, of course be entirely desirable, and one of the main reasons for sending a person into the hospital is to get him away from home surroundings, which, be he rich or poor, are often unfavorable to recovery; but at the same time it is equally important for the physician to know the exact character of those surroundings.

Everybody, sick or well, is affected in one way or another, consciously or subconsciously, by the material and spiritual forces that bear on his life, and especially to the sick such forces may act as powerful stimulants or depressants. When the general practitioner goes into the home of a patient, he may know the whole background of the family life from past experience; but even when he comes as a stranger he has every opportunity to find out what manner of man his patient is, and what kind of circumstances makes his life. He gets a hint of financial anxiety or of domestic incompatibility; he may find himself confronted by a querulous, exacting, self-centered patient, or by a gentle invalid overawed by a dominating family; and as he appreciates how these circum-

stances are reacting on the patient he dispenses sympathy, encouragement, or discipline. What is spoken of as a "clinical picture" is not just a photograph of a man sick in bed; it is an impressionistic painting of the patient surrounded by his home, his work, his relations, his friends, his joys, sorrows, hopes, and fears. Now, all of this background of sickness which bears so strongly on the symptomatology is liable to be lost sight of in the hospital: I say "liable to" because it is not by any means always lost sight of, and because I believe that by making a constant and conscious effort one can almost always bring it out into its proper perspective. The difficulty is that in the hospital one gets into the habit of using the oil immersion lens instead of the low power, and focuses too intently on the center of the field.

When a patient enters a hospital, the first thing that commonly happens to him is that he loses his personal identity. He is generally referred to, not as Henry Jones, but as "that case of mitral stenosis in the second bed on the left." There are plenty of reasons why this is so, and the point is, in itself, relatively unimportant; but the trouble is that it leads, more or less directly, to the patient

being treated as a case of mitral stenosis, and not as a sick man. The disease is treated, but Henry Jones, lying awake nights while he worries about his wife and children, represents a problem that is much more complex than the pathologic physiology of mitral stenosis, and he is apt to improve very slowly unless a discerning intern discovers why it is that even large doses of digitalis fail to slow his heart rate. Henry happens to have heart disease, but he is not disturbed so much by dyspnea as he is by anxiety for the future, and a talk with an understanding physician who tries to make the situation clear to him, and then gets the social service worker to find a suitable occupation, does more to straighten him out than a book full of drugs and diets. Henry has an excellent example of a certain type of heart disease, and he is glad that all the staff find him interesting, for it makes him feel that they will do the best they can to cure him; but just because he is an interesting case he does not cease to be a human being with very human hopes and fears. Sickness produces an abnormally sensitive emotional state in almost every one, and in many cases the emotional state repercusses, as it were, on the organic disease. The pneumonia would probably run its

course in a week, regardless of treatment, but the experienced physician knows that by quieting the cough, getting the patient to sleep, and giving a bit of encouragement, he can save his patient's strength and lift him through many distressing hours. The institutional eye tends to become focused on the lung, and it forgets that the lung is only one member of the body.

But if teachers and students are inclined to take a limited point of view even toward interesting cases of organic disease, they fall into much more serious error in their attitude toward a large group of patients who do not show objective, organic, pathologic, conditions, and who are generally spoken of as having "nothing the matter with them." Up to a certain point, as long as they are regarded as diagnostic problems, they command attention; but as soon as the physician has assured himself that they do not have organic disease, he passes them over lightly.

Take the case of a young woman, for instance, who entered the hospital with a history of nausea and discomfort in the upper part of the abdomen after eating. Mrs. Brown had "suffered many things of many physicians." Each of them gave her a tonic and limited her diet. She stopped eat-

ing everything that any of her physicians advised her to omit, and is now living on a little milk with a few crackers; but her symptoms persist. The history suggests a possible gastric ulcer or gall-stones, and with a proper desire to study the case thoroughly, she is given a test meal, gastric analysis, and duodenal intubation, and roentgen-ray examinations are made of the gastro-intestinal tract and gall-bladder. All of these diagnostic methods give negative results; that is, they do not show evidence of any structural change. The case immediately becomes much less interesting than if it had turned out to be a gastric ulcer with atypical symptoms. The visiting physician walks by and says, "Well there's nothing the matter with her." The clinical clerk says, "I did an awful lot of work on that case and it turned out to be nothing at all." The intern, who wants to clear out the ward to make room for some interesting cases, says, "Mrs. Brown, you can send for your clothes and go home to-morrow. There really is nothing the matter with you, and fortunately you have not got any of the serious troubles we suspected. We have used all the most modern and scientific methods and we find that there is no reason why you should not eat anything you want

to. I'll give you a tonic to take when you go home." Same story, same colored medicine! Mrs. Brown goes home, somewhat better for her rest in new surroundings, thinking that nurses are kind and physicians are pleasant, but that they do not seem to know much about the sort of medicine that will touch her trouble. She takes up her life and the symptoms return—and then she tries chiropractic, or perhaps Christian Science.

It is rather fashionable to say that the modern physician has become "too scientific." Now, was it too scientific, with all the stomach tubes and blood counts and roentgen-ray examinations? Not at all. Mrs. Brown's symptoms might have been due to a gastric ulcer or to gall-stones, and after such a long course it was only proper to use every method that might help to clear the diagnosis. Was it, perhaps, not scientific enough? The popular conception of a scientist as a man who works in a laboratory and who uses instruments of precision is as inaccurate as it is superficial, for a scientist is known, not by his technical processes, but by his intellectual processes; and the essence of the scientific method of thought is that it proceeds in an orderly manner toward the establishment of a truth. Now the chief criticism to be made of

the way Mrs. Brown's case was handled is that the staff was contented with a half-truth. The investigation of the patient was decidedly unscientific in that it stopped short of even an attempt to determine the real cause of the symptoms. As soon as organic disease could be excluded the whole problem was given up, but the symptoms persisted. Speaking candidly, the case was a medical failure in spite of the fact that the patient went home with the assurance that there was "nothing the matter" with her.

A good many "Mrs. Browns," male and female, come to hospitals, and a great many more go to private physicians. They are all characterized by the presence of symptoms that cannot be accounted for by organic disease, and they are all liable to be told that they have "nothing the matter" with them. Now my own experience as a hospital physician has been rather long and varied, and I have always found that, from my point of view, hospitals are particularly interesting and cheerful places; but I am fairly certain that, except for a few low-grade morons and some poor wretches who want to get in out of the cold, there are not many people who become hospital patients unless there is something the matter with them. And,

by the same token, I doubt whether there are many people, except those stupid creatures who would rather go to the physician than go to the theater, who spend their money on visiting private physicians unless there is something the matter with them. In hospital and in private practice, however, one finds this same type of patient, and many physicians whom I have questioned agree in saying that, excluding cases of acute infection, approximately half of their patients complained of symptoms for which an adequate organic cause could not be discovered. Numerically, then, these patients constitute a large group, and their fees go a long way toward spreading butter on the doctor's bread. Medically speaking, they are not serious cases as regards prospective death, but they are often extremely serious as regards prospective life. Their symptoms will rarely prove fatal, but their lives will be long and miserable, and they may end by nearly exhausting their families and friends. Death is not the worst thing in the world, and to help a man to a happy and useful career may be more of a service than the saving of life.

What is the matter with all these patients? Technically, most of them come under the broad heading of the "psychoneuroses"; but for practical

purposes many of them may be regarded as patients whose subjective symptoms are due to disturbances of the physiologic activity of one or more organs or systems. These symptoms may depend on an increase or a decrease of a normal function, on an abnormality of function, or merely on the subjects becoming conscious of a wholly normal function that normally goes on unnoticed; and this last conception indicates that there is a close relation between the appearance of the symptoms and the threshold of the patient's nervous reactions. The ultimate causes of these disturbances are to be found, not in any gross structural changes of the organs involved, but rather in nervous influences emanating from the emotional or intellectual life, which, directly or indirectly, affect in one way or another organs that are under either voluntary or involuntary control.

All of you have had experiences that have brought home the way in which emotional reactions affect organic functions. Some of you have been nauseated while anxiously waiting for an important examination to begin, and a few may even have vomited; others have been seized by an attack of diarrhea under the same circumstances. Some of you have had polyuria before making a speech,

and others have felt thumping extrasystoles or a pounding tachycardia before a football game. Some of you have noticed rapid shallow breathing when listening to a piece of bad news, and others know the type of occipital headache, with pain down the muscles of the back of the neck, that comes from nervous anxiety and fatigue.

These are all simple examples of the way that emotional reactions may upset the normal functioning of an organ. Vomiting and diarrhea are due to abnormalities of the motor function of the gastro-intestinal tract—one to the production of an active reversed peristalsis of the stomach and a relaxation of the cardiac sphincter, the other to hyperperistalsis of the large intestine. The polyuria is caused by vasomotor changes in renal circulation, similar in character to the vasomotor changes that take place in the peripheral vessels in blushing and blanching of the skin, and in addition there are quite possibly associated changes in the rate of blood flow and in blood pressure. Tachycardia and extrasystoles indicate that not only the rate but also the rhythm of the heart is under a nervous control that can be demonstrated in the intact human being as well as in the experimental animal. The ventilatory function of the

respiration is extraordinarily subject to nervous influences; so much so, in fact, that the study of the respiration in man is associated with peculiar difficulties. Rate, depth, and rhythm of breathing are easily upset by even minor stimuli, and in extreme cases the disturbance in total ventilation is sometimes so great that gaseous exchange becomes affected. Thus, I remember an emotional young woman who developed a respiratory neurosis with deep and rapid breathing, and expired so much carbon dioxide that the symptoms of tetany ensued. The explanation of the occipital headaches and of so many pains in the muscles of the back is not entirely clear, but they appear to be associated with changes in muscular tone or with prolonged states of contraction. There is certainly a very intimate correlation between mental tenseness and muscular tenseness, and whatever methods are used to produce mental relaxation will usually cause muscular relaxation, together with relief of this type of pain. A similar condition is found in so-called writers' cramp, in which the painful muscles of the hand result, not from manual work, but from mental work.

One might go much further, but these few illustrations will suffice to recall the infinite number

of ways in which physiologic functions may be upset by emotional stimuli, and the manner in which the resulting disturbances of function manifest themselves as symptoms. These symptoms, although obviously not due to anatomic changes, may, nevertheless, be very disturbing and distressing, and there is nothing imaginary about them. Emotional vomiting is just as real as the vomiting due to pyloric obstruction, and so-called "nervous headaches" may be as painful as if they were due to a brain tumor. Moreover, it must be remembered that symptoms based on functional disturbances may be present in a patient who has, at the same time, organic disease, and in such cases the determination of the causes of the different symptoms may be an extremely difficult matter. Every one accepts the relationship between the common functional symptoms and nervous reactions, for convincing evidence is to be found in the fact that under ordinary circumstances the symptoms disappear just as soon as the emotional cause has passed. But what happens if the cause does not pass away? What if, instead of having to face a single three-hour examination, one has to face a life of being constantly on the rack? The emotional stimulus persists, and continues to pro-

duce the disturbances of function. As with all nervous reactions the longer the process goes on, or the more frequently it goes on, the easier it is for it to go on. The unusual nervous track becomes an established path. After a time, the symptom and the subjective discomfort that it produces come to occupy the center of the picture, and the causative factors recede into a hazy background. The patient no longer thinks, "I cannot stand this life," but he says out loud, "I cannot stand this nausea and vomiting. I must go to see a stomach specialist."

Quite possibly your comment on this will be that the symptoms of such "neurotic" patients are well known, and they ought to go to a neurologist or a psychiatrist and not to an internist or a general practitioner. In an era of internal medicine, however, which takes pride in the fact that it concerns itself with the functional capacity of organs rather than with mere structural changes, and which has developed so many "functional tests" of kidneys, heart, and liver, is it not rather narrow-minded to limit one's interest to those disturbances of function which are based on anatomic abnormalities? There are other reasons, too, why most of these "functional" cases belong to the field of

general medicine. In the first place, the differential diagnosis between organic disease and pure functional disturbance is often extremely difficult, and it needs the broad training in the use of general clinical and laboratory methods which forms the equipment of the internist. Diagnosis is the first step in treatment. In the second place, the patients themselves frequently prefer to go to a medical practitioner rather than to a psychiatrist, and in the long run it is probably better for them to get straightened out without having what they often consider the stigma of having been "nervous" cases. A limited number, it is true, are so refractory or so complex that the aid of the psychiatrist must be sought, but the majority can be helped by the internist without highly specialized psychologic technic, if he will appreciate the significance of functional disturbances and interest himself in their treatment. The physician who does take these cases seriously—one might say scientifically—has the great satisfaction of seeing some of his patients get well, not as the result of drugs or as the result of the disease having run its course, but as the result of his own individual efforts.

Here, then, is a great group of patients in which

it is not the disease but the man or the woman who needs to be treated. In general hospital practice physicians are so busy with the critically sick, and in clinical teaching they are so concerned with training students in physical diagnosis and attempting to show them all types of organic disease, that they do not pay as much attention as they should to the functional disorders. Many a student enters upon his career having hardly heard of them except in his course in psychiatry, and without the faintest conception of how large a part they will play in his future practice. At best, his method of treatment is apt to be a cheerful reassurance combined with a placebo. The successful diagnosis and treatment of these patients, however, depends almost wholly on the establishment of that intimate personal contact between physician and patient which forms the basis of private practice. Without this, it is quite impossible for the physician to get an idea of the problems and troubles that lie behind so many functional disorders. If students are to obtain any insight into this field of medicine, they must also be given opportunities to build up the same type of personal relationship with their patients.

Is there, then, anything inherent in the condi-

tions of clinical teaching in a general hospital that makes this impossible? Can you form a personal relationship in an impersonal institution? Can you accept the fact that your patient is entirely removed from his natural environment and then reconstruct the background of environment from the history, from the family, from a visit to the home or workshop, and from the information obtained by the social-service worker? And while you are building up this environmental background, can you enter into the same personal relationship that you ought to have in private practice? If you can do all this, and I know from experience that you can, then the study of medicine in the hospital actually becomes the practice of medicine, and the treatment of disease immediately takes its proper place in the larger problem of the care of the patient.

When a patient goes to a physician he usually has confidence that the physician is the best, or at least the best available, person to help him in what is, for the time being, his most important trouble. He relies on him as on a sympathetic adviser and a wise professional counsellor. When a patient goes to a hospital he has confidence in the reputation of the institution, but it is hardly

necessary to add that he also hopes to come into contact with some individual who personifies the institution and will also take a human interest in him. It is obvious that the first physician to see the patient is in this strategic position—and in hospitals all students can have the satisfaction of being regarded as physicians.

Here, for instance, is a poor fellow who has just been jolted to the hospital in an ambulance. A string of questions about himself and his family has been fired at him, his valuables and even his clothes have been taken away from him, and he is wheeled into the ward on a truck, miserable, scared, defenseless, and, in his nakedness, unable to run away. He is lifted into a bed, becomes conscious of the fact that he is the center of interest in the ward, wishes that he had stayed at home among friends, and, just as he is beginning to take stock of his surroundings, finds that a thermometer is being stuck under his tongue. It is all strange and new, and he wonders what is going to happen next. The next thing that does happen is that a man in a long white coat sits down by his bedside, and starts to talk to him. Now it happens that according to our system of clinical instruction that man is usually a medical

student. Do you see what an opportunity you have? The foundation of your whole relation with that patient is laid in those first few minutes of contact, just as happens in private practice. Here is a worried, lonely, suffering man, and if you begin by approaching him with sympathy, tact, and consideration, you get his confidence and he becomes *your* patient. Interns and visiting physicians may come and go, and the hierarchy gives them a precedence; but if you make the most of your opportunities he will regard you as his personal physician, and all the rest as mere consultants. Of course, you must not drop him after you have taken the history and made your physical examination. Once your relationship with him has been established, you must foster it by every means. Watch his condition closely and he will see that you are alert professionally. Make time to have little talks with him—and these talks need not always be about his symptoms. Remember that you want to know him as a man, and this means you must know about his family and friends, his work and his play. What kind of person is he—cheerful, depressed, introspective, careless, conscientious, mentally keen or dull? Look out for all the little incidental things that you can do

for his comfort. These, too, are a part of "the care of the patient." Some of them will fall technically into the field of "nursing," but you will always be profoundly grateful for any nursing technique that you have acquired. It is worth your while to get the nurse to teach you the right way to feed a patient, change the bed, or give a bed pan. Do you know the practical tricks that make a dyspneic patient comfortable? Assume some responsibility for these apparently minor points and you will find that it is when you are doing some such friendly service, rather than when you are a formal questioner, that the patient suddenly starts to unburden himself, and a flood of light is thrown on the situation.

Meantime, of course, you will have been active along strictly medical lines, and by the time your clinical and laboratory examinations are completed you will be surprised to see how intimately you know your patient, not only as an interesting case but also as a sick human being. And everything you have picked up about him will be of value in the subsequent handling of the situation. Suppose, for instance, you find conclusive evidence that his symptoms are due to organic disease: say, to a gastric ulcer. As soon as you face the prob-

lem of laying out his regimen you find that it is one thing to write an examination paper on the treatment of gastric ulcer and quite another thing to treat John Smith, who happens to have a gastric ulcer. You want to begin by giving him rest in bed and a special diet for eight weeks. Rest means both nervous and physical rest. Can he get it best at home or in the hospital? What are the conditions at home? If you keep him in the hospital, it is probably good for him to see certain people, and bad for him to see others. He has business problems that must be considered. What kind of compromise can you make on them? How about the financial implications of eight weeks in bed followed by a period of convalescence? Is it, on the whole, wiser to try a strict regimen for a shorter period, and, if he does not improve, take up the question of operation sooner than is in general advisable? These and many similar problems arise in the course of the treatment of almost every patient, and they have to be looked at, not from the abstract point of view of the treatment of the disease, but from the concrete point of view of the care of the individual.

Suppose, on the other hand, that all your clinical and laboratory examinations turn out entirely

negative as far as revealing any evidence of organic disease is concerned. Then you are in the difficult position of not having discovered the explanation of the patient's symptoms. You have merely assured yourself that certain conditions are not present. Of course, the first thing you have to consider is whether these symptoms are the result of organic disease in such an early stage that you cannot definitely recognize it. This problem is often extremely perplexing, requiring great clinical experience for its solution, and often you will be forced to fall back on time in which to watch developments. If, however, you finally exclude recognizable organic disease, and the probability of early or very slight organic disease, it becomes necessary to consider whether the symptomatology may be due to a functional disorder which is caused by nervous or emotional influences. You know a good deal about the personal life of your patient by this time, but perhaps there is nothing that stands out as an obvious etiologic factor, and it becomes necessary to sit down for a long, intimate talk with him to discover what has remained hidden.

Sometimes it is well to explain to the patient, by obvious examples; how it is that emotional

states may bring about symptoms similar to his own, so that he will understand what you are driving at and will coöperate with you. Often the best way is to go back to the very beginning and try to find out the circumstances of the patient's life at the time the symptoms first began. The association between symptoms and cause may have been simpler and more direct at the onset, at least in the patient's mind, for as time goes on, and the symptoms become more pronounced and distressing, there is a natural tendency for the symptoms to occupy so much of the foreground of the picture that the background is completely obliterated. Sorrow, disappointment, anxiety, self-distrust, thwarted ideals or ambitions in social, business, or personal life, and particularly what are called maladaptations to these conditions—these are among the commonest and simplest factors that initiate and perpetuate the functional disturbances. Perhaps you will find that the digestive disturbances began at the time the patient was in serious financial difficulties, and that they have recurred whenever he is worried about money matters. Or you may find that ten years ago a physician told the patient he had heart disease, cautioning him "not to worry about it." For ten years the patient has

never mentioned the subject, but he has avoided every exertion, and has lived with the idea that sudden death was in store for him. You will find that physicians, by wrong diagnoses and ill-considered statements, are responsible for many a wrecked life, and you will discover that it is much easier to make a wrong diagnosis than it is to unmake it. Or, again, you may find that the pain in this woman's back made its appearance when she first felt her domestic unhappiness, and that this man's headaches have been associated, not with long hours of work, but with a constant depression due to unfulfilled ambitions. The causes are manifold and the manifestations Protean. Sometimes the mechanism of cause and effect is obvious; sometimes it becomes apparent only after a very tangled skein has been unraveled.

If the establishment of an intimate personal relationship is necessary in the diagnosis of functional disturbances, it becomes doubly necessary in their treatment. Unless there is complete confidence in the sympathetic understanding of the physician as well as in his professional skill, very little can be accomplished; but granted that you have been able to get close enough to the patient to discover the cause of the trouble, you will find

that a general hospital is not at all an impossible place for the treatment of functional disturbances. The hospital has, indeed, the advantage that the entire reputation of the institution, and all that it represents in the way of facilities for diagnosis and treatment, go to enhance the confidence which the patient has in the individual physician who represents it. This gives the very young physician a hold on his patients that he could scarcely hope to have without its support. Another advantage is that hospital patients are removed from their usual environment, for the treatment of functional disturbances is often easier when patients are away from friends, relatives, home, work, and, indeed, everything that is associated with their daily life. It is true that in a public ward one cannot obtain complete isolation in the sense that this is a part of the Weir Mitchell treatment, but the main object is accomplished if one has obtained the psychologic effect of isolation which comes with an entirely new and unaccustomed atmosphere. The conditions, therefore, under which you, as students, come into contact with patients with functional disturbances are not wholly unfavorable, and with very little effort they can be made to simulate closely the conditions in private practice.

It is not my purpose, however, to go into a discussion of the methods of treating functional disturbances, and I have dwelt on the subject only because these cases illustrate so clearly the vital importance of the personal relationship between physician and patient in the practice of medicine. In all your patients whose symptoms are of functional origin, the whole problem of diagnosis and treatment depends on your insight into the patient's character and personal life, and in every case of organic disease there are complex interactions between the pathologic processes and the intellectual processes which you must appreciate and consider if you would be a wise clinician. There are moments, of course, in cases of serious illness when you will think solely of the disease and its treatment; but when the corner is turned and the immediate crisis is passed, you must give your attention to the patient. Disease in man is never exactly the same as disease in an experimental animal, for in man the disease at once affects and is affected by what we call the emotional life. Thus, the physician who attempts to take care of a patient while he neglects this factor is as unscientific as the investigator who neglects to control all the conditions that may affect his experiment. The good physi-

cian knows his patients through and through, and his knowledge is bought dearly. Time, sympathy, and understanding must be lavishly dispensed, but the reward is to be found in that personal bond which forms the greatest satisfaction of the practice of medicine. One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring for the patient.

THE PHYSICIAN AND THE LABORATORY

THE important part which the laboratory has come to play in medical science is generally accepted and appreciated, but the relation which it should bear to clinical practice remains to be satisfactorily defined. It is obvious to all clinicians of experience that the laboratory never can become, and never should become, the predominating factor in the practice of medicine, but it is equally evident that sound medicine cannot be carried on without the support of the laboratory, and that in the future the dependence of the clinic on the laboratory will probably increase rather than decrease. Among the men engaged in active medical practice, however, only a small minority can ever hope to undertake extensive laboratory work in connection with their patients, and the great majority of physicians are and will continue to be confronted by the difficult problem of their relation to this growing influence in medicine. To the teacher of medicine, whose foremost duty is to

prepare his students for the practice of the future, the same problem presents itself, for the students must be thoroughly trained in the laboratory methods that will be of practical service, but not burdened with those that are highly specialized or of questionable value.

The leading exponents of clinical laboratory work are the large hospitals—especially the hospitals associated with teaching institutions—and these exert a profound effect on private medical practice, but the conditions existing in them are such as to demand a separate consideration. In such hospitals, laboratory investigations fall into one of three categories. The first includes those which belong to the field of pure research, their object being to advance the limits of our knowledge of disease. With this we have, at present, no concern. The second consists of those laboratory methods that are applied in order to obtain direct aid in the diagnosis or treatment of individual cases of disease. This often means the use of standard methods of proved and known value—methods which have received general professional acceptance—but in addition it means the use of many methods of possible value, the significance of which needs to be thoroughly tested

under conditions favorable for critical control. The trying out of newly advocated measures for the diagnosis and treatment of disease must always be an important function of the larger and better equipped hospitals. Many—indeed the majority—of such methods are found to be unreliable or of little practical value, and after their status becomes established they are discarded. Very rarely a new method withstands the test of prolonged observation and proves to be of such practical significance that it can be properly advocated for general adoption. This type of hospital thus serves as the court before which all such new ideas must stand trial and it is astonishing, if not depressing, to compare the enormous amount of time and labor that is spent in gathering evidence with the comparatively meager results that pass the tests. The burden added to the hospital laboratories by such work is very great, but the importance of the function cannot be overestimated, for it filters out what is useful and protects the profession from much that is worthless.

The third category under which hospital laboratory work is carried on depends on the fact that every hospital is, or should be, an educational institution, and one of its primary duties is the instruc-

tion of all the members of the staff in the nature of disease. Many of the laboratory data, therefore, that fill the pages of carefully compiled hospital records do not have a direct diagnostic or therapeutic bearing on the individual case, but they contribute information which throws light on the pathological physiology and clarifies the disease process. In so far as the accumulation of such accessory laboratory observations is instructive to those who are studying the patients, the work is more than justified, but if, as sometimes happens, particularly with the younger members of the staff, it leads to the idea that all these observations are necessary for the proper diagnosis and treatment of any given case, the result may be most unfortunate. Properly used, such laboratory observations are enlightening and broadening; improperly used, they are blinding and narrowing. The real reason for taking an electrocardiogram on every patient with a cardiac arrhythmia is so that after one has studied the records of a large series of cases, he may understand the clinical manifestations of cardiac irregularities so well that he is able to recognize the type of arrhythmia without the electrocardiogram. His increased knowledge should, on the one hand, emancipate him from the

need of the complicated apparatus in most cases, and, on the other hand, help him to appreciate the occasional case in which careful instrumental study is desirable. From this point of view, therefore, much hospital laboratory work may be regarded as of indirect significance for the individual patient, but aimed at the training of better clinicians. When, as sometimes happens, it results in the production of poor clinicians, unable to interpret disease except through the eyes of the laboratory, its purpose has failed, and failed seriously.

The physician engaged in the actual practice of medicine is directly concerned, therefore, with only a small part of the laboratory work which is carried on in the larger hospitals, for his attention must necessarily be focussed entirely on those methods which contribute immediately to the better care of his patients. The methods of the teaching clinic cannot and should not be carried into extramural practice. In the hospital all manner of tests can readily be performed in obscure or doubtful cases, but in private practice the economic factor usually restricts one to the tests which most obviously offer practical assistance. Fortunately, however—and this is apparently contrary to much present-day opinion—good medicine does not con-

sist in the indiscriminate application of laboratory examinations to a patient, but rather in having so clear a comprehension of the probabilities and possibilities of a case as to know what tests may be expected to give information of value. Even so-called thoroughness should be tempered by reason, and the reason that must dictate the part which laboratory tests shall play in any given case must be the result of a combination of clinical experience with an understanding of the physiological significance of the available tests.

For the physician in private practice laboratory tests fall into two main classes. The first consists of those which every educated doctor should be able to carry out, and the second consists of tests which are more difficult in technique and which should be attempted only by a limited number of men who have been able to devote the time necessary to acquire specialized training. Fortunately, the first class is by far the more important of the two.

The laboratory tests which should be at the command of every practitioner of medicine are those which deal with the more important and practically useful examinations of the blood, urine, feces, gastric contents, spinal fluids, pleural and

ascitic fluids. These are the tests that are customarily taught in the medical schools in the course in clinical pathology, and the instruction is usually designed to take up the laboratory methods that are absolutely necessary for good practice and those only. An experience in teaching this subject during the last seven years has emphasized the striking fact that in spite of the great contributions which the laboratory has made to clinical medicine there has been surprisingly little change in the character or number of the technical methods which are essential for good practice. In many instances the progress of medical science has resulted in a clearer, broader, and more helpful interpretation of the tests, but the actual technical procedures have not been greatly altered and they are still available to the trained man who has a minimum of laboratory apparatus. It has, indeed, been interesting to find how little new material in the way of technical procedure could justifiably be added to the course from year to year, even though the literature and the practices of various clinics were carefully followed in the attempt to keep the course up to date. The methods for the examination of the urine, for instance, are taught much as they were two decades and more ago. Certain

tests, such as urea determinations, have been discarded and others are regarded as having a different significance, but the records still show the color, specific gravity, reaction, albumin and sugar content, and the microscopic examination of the sediment. These simple observations, correctly used and interpreted, are practically all that is necessary in cases of nephritis. The modern "two hour renal test" requires nothing more than determinations of volume and specific gravity, and if it is combined with the phenolsulphonephthalein test—the technique of which is entirely simple—the field is open for the study of renal function. It is far more important to understand the significance of these easy tests than it is to worry about the quantitation of blood urea or blood uric acid. The situation is much the same with regard to hematology. The technical procedures of primary value are now as they have been for years, the counting of white cells and red cells, the estimating of hemoglobin, and the preparation of stained specimens of blood. Quite recently the students at the Harvard Medical School have also been instructed in the methods of counting platelets and of staining reticulated cells, but neither of these procedures involves any essentially new technique. With these, and one

or two other tests, such as coagulation time and bleeding time, the field of hematology is open. Again, the technique has been altered but little, and little has been added to it, but modern investigations have brought to it a greater significance. In the examination of the spinal fluid the cell count, which is the most important point, is merely an adaptation of the method of counting blood leucocytes, and not a new technical process. With regard to the examination of the gastric contents, body fluids, and feces, the same argument holds true; none of them involves difficult or prolonged examinations or expensive apparatus, and all of them yield information of the highest value to the man trained in their use and interpretation. Here, however, is the crux of the situation. All of these so-called routine tests are easy and consume little time in the hands of a trained man, but they are difficult, time-consuming, and of little value in the hands of an untrained man. What is really needed in the application of laboratory methods to the practice of medicine is not a knowledge of more technical procedures, but a much more exact knowledge of a few. Experience has shown that a proper degree of technical skill can rarely be obtained during the medical school course, and it should be

the duty of every hospital to see that no house officer receives his diploma unless he has demonstrated an ability to perform satisfactorily all the simpler laboratory examinations and has shown a knowledge of how to use the results in the study of his patient. If every physician was so much at home with the technique of the simpler tests that it was quicker for him to apply them than to wonder whether they were worth while applying, and if he understood how to interpret these tests and gain the maximum information from them, the problem of the relation of the physician to the laboratory would be largely settled.

The second group of laboratory methods having a direct bearing on the practice of medicine consists of those which involve highly specialized technique and complicated apparatus. Electrocardiography, basal metabolism determinations, the Wassermann reaction, clinical bacteriology, and the various types of chemical analysis of the blood fall into this category. The information to be elicited from these and other analogous methods is often extremely valuable, but their application is necessary only in a comparatively limited number of cases. As a whole, these methods do not have the broad general significance and importance that

characterize the simpler tests just referred to. It is, of course, highly desirable that they should be available to practicing physicians, so that they may be used in the cases in which they are particularly indicated, but fortunately there is no necessity for the great majority of physicians to bother themselves about the details of technique. This should be relegated to a small number of men who are devoting their attention to specialized fields. Simplified technical procedures, supposed to be adapted to the use of practicing physicians, are continually being advocated as substitutes for the recognized standard methods employed in performing some of these tests, but they are frequently unreliable, or reliable only in the hands of one who has a thorough knowledge of all the sources of error, so that it is far wiser to avoid them and to obtain the dependable observations of experts. The clinician may, therefore, neglect the technical side of these more elaborate tests with a clear conscience, but in so doing he should not feel that he may drop the matter entirely. If he is ever to make use of them—and this the welfare of his patients may demand—he must have an understanding of their significance and of the physiology underlying them. He must know when they

are indicated and when they cannot be expected to give important evidence. A little insight into the fundamental principles of metabolism, for instance, and a recognition of the common relationship between increased heat production, pulse rate, and certain other symptoms are of the greatest help in deciding in what cases an observation of the basal metabolism may be of diagnostic significance, and in what cases it is entirely superfluous. It is much more important to know in what particular case a determination of the basal metabolism may be of value than it is to know the details of the performance of the test. Then again, the physician should be able to interpret the results of the test in the light of his individual patient. A basal metabolism which is reported as 15 per cent above normal may or may not be significant, and an electrocardiogram showing a prolonged conduction time may be due to one of several factors, but in either case the physician should not be forced to depend for the interpretation on the man who does the laboratory work and who presumably has a less intimate knowledge of the clinical condition of the patient. The clinician himself should be able to appraise the laboratory findings if the patient is to derive the greatest benefit.

It is frequently alleged that many of our medical schools and teaching hospitals are producing "laboratory men" instead of clinicians. If it is true that the graduates of these institutions enter the practice of medicine handicapped by their dependence on the laboratory, then the system of training is wrong or—what seems more probable—it is imperfectly carried out. When schools and hospitals do their full duty their graduates will have had an opportunity to study disease intensively, checking and controlling their bedside observations by a variety of exact laboratory investigations. Such an experience will enable them to correlate the clinical manifestations of disease with the underlying physiological processes, so that they can subsequently understand and interpret disease without recourse to all the laboratory procedures which were necessary in their student days. They will enter practice trained so thoroughly in a limited number of simple technical methods that they will not hesitate to use them, and they will understand all of their significance. They will also know when more complicated tests are indicated and how to interpret the results. In spite of the extraordinary influence which the laboratory has had on the development of medical science

there is as yet no cause for the physician to feel that he cannot keep up with the requirements of the best modern practice. All of the more important elements are easily within his grasp. The need in clinical medicine continues to be, not for men trained in many laboratory methods but for men well grounded in a few methods—not for better technicians, but for better clinicians.

THE SOUL OF THE CLINIC

[NOTE.—During the latter days of his life Dr. Peabody set down on paper in a letter to Dr. Warfield T. Longscope * his conception of the relationship and responsibility of the Medical Chief to his Clinic. Though he felt that it was not entirely complete in certain details, he finished the first draft and wrote the last sentence the day before his death. His friends felt that the letter was too valuable to remain as a private possession, and it was made available to the medical profession. The document was published, as it was written, a letter to an intimate friend in answer to sympathetic correspondence and discussion.—ED.]

DEAR WARFIELD:

Thank you so much for your good letter. Of course you are altogether too kind in what you say about the clinic at the Boston City Hospital and the part I have played in its development, but you set me up and stimulate me to write you at some length about the problems that many of us who are teaching clinical medicine have on our minds—Whither are we tending and what ought our aim to be? I have tried recently, without much success,

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to formulate a very brief statement as to the type of clinic I wanted to develop at the Boston City Hospital and I am glad to be encouraged to try my hand at the subject rather more in detail. First of all, I do not think we can or should all aim at having the same type of medical clinic. This must depend in part on local conditions. Thus you, in a university hospital, completely under your own control, have a very different problem and will produce something quite different from what I, a cog in a great municipal hospital, can produce. Each has its own advantages and its disadvantages. In part, moreover, the type of clinic will reflect the personality and interests of the chief, and the whole character of the clinic may alter when a new chief is put in charge of it.

One of the first problems to be considered is the kind of man who ought to be selected as professor of medicine. I quite agree with you that the requirements which are now generally put forward are so impossible to fulfil that they become almost ludicrous. May we perhaps take pride in the fact that we have been called to fill the shoes of such supermen even if we do rattle around in them! When a professorship falls open, the committee in charge of filling the position usually says

somewhat naïvely that it is looking for a man who has had an intensive scientific training, has done important research, is a good administrator, is a competent teacher, and finally has had clinical experience. We have heard this string of specifications so often that they are becoming rather hackneyed. Such a man is, of course, almost impossible to find, and I have been wondering where the ideal originated. I think it results from the fact that in recent years—since what we may call the Reformation—the selection of professors of clinical medicine has been more and more influenced by laymen and by professors of nonclinical subjects. Both may be excellent pedagogues and experts on education and yet fail to grasp the difficulties and complexities which confront this particular type of position. Thus the administration of the department of medicine, with its large teaching and clinical staff, its responsibility for the welfare of a considerable number of patients, its interrelations with the hospital administration and its subdepartments (social service, dietetics, physical therapy) is a very different thing from the administration of a department of physiology or biologic chemistry. It is all very well to say that the professor should delegate most of his work to others, but you and

I, who are practical laborers in the vineyard, know that this does not work and that actually the chief must do it himself if the department is to run smoothly. "Clinical experience" is apt to be put last among the specifications. This is because some of our friends think that clinical medicine can be "picked up" very easily by the prospective professor, while others believe that if a man is well trained in such sciences as chemistry, physics and physiology he has only to learn the technical clinical methods of percussion and auscultation. Clinical medicine is to them little more than the application of these sciences to the sick patient, which is, comparatively, easily acquired. As a matter of fact, however, we know that clinical medicine is a subject which is to be mastered only by years of long, hard experience, and if any of the members of the committee to select a professor were taken sick and were to be under his care, I am pretty certain they would rate "experience" higher. The argument actually put forward, that the professor need not be much of a clinician because some one else can tell the students how to take care of patients, is weak and beside the point because it begins by accepting as insignificant what is a very important function of the department.

I believe that the primary function of a department of medicine is to teach students those things that will enable them to practice the best contemporary medicine and will give them a foundation on which to superimpose the advances that will come during their professional life. They must be taught medicine as a vital and expanding subject, and must be stimulated to keep abreast of its growth. If it be true that preparation of students for a career in clinical medicine, and more specifically for the practice of medicine, is the first duty of a department of medicine, then it seems clear to me that the backbone of the clinic is the general ward and the outpatient department, for it is here that one finds or can readily create conditions which most closely resemble those which are found in actual practice. In order to preserve this backbone intact I have always hesitated to encourage the development of wards and departments for special groups of patients. This is, of course, necessary to some extent both for intensive training and for research, but it should not be done at too great expense to the general ward, lest the general ward come to contain nothing but what are regarded as "uninteresting cases," and the idea of

specialization be instilled in student and staff too soon. After all, "intensive training" does not involve the study of many patients of a group at one time, and the rest can be left in the general ward, which should be as exciting in its variety and unexpected manifestations of disease as is the actual practice of medicine.

If the general ward is the backbone of the clinic, then the head of the clinic must be close to it; indeed, it ought to be directly under him. The importance of the general ward and what it stands for as representing the general practice of medicine can be impressed on the younger members of the staff and on the students only if the relation of the chief to the ward is real and not fictitious. The whole atmosphere of the general ward, and thus the attitude of the future practitioners to the profession of medicine, is here set by the chief of the clinic, for it must always be remembered that standards of thought, as well as of action, are set from above. If the chief has any conviction as to the relation of doctors to their patients, to scientific research, or to any other aspect of his profession, this is his opportunity to bring it out, and in so doing he will determine the character of the

clinic. The growing tendency for the chief to delegate ward authority and responsibility to his assistants, and to "spare himself" from making ward-rounds and doing ward-teaching, seems to me extremely unfortunate. The wards may be run as well or better, but the dignity of the general ward becomes impaired in the eyes of staff and students just as soon as the chief separates himself from it. This is one of the reasons that I have not adopted the usual plan of having a resident staff over the intern staff in the general wards. I want the interns to learn to assume responsibility for the patients and then to come directly to the chief with their problems, rather than feel that they can take things up only with subordinates. This arrangement leads directly to a consideration of the status of the interns. On this point I feel very strongly. They should be regarded as advanced students, and as perhaps the most important group of advanced students that we have. They come with minds, characters and personalities in the most pliable and receptive states, and can be affected in an extraordinary degree even by the atmosphere of the clinic. Their very manner of dress and parting their hair changes. Social ease, and manners that will play a large and legitimate

part in medical practice, develop. At the same time intellectual changes of a far deeper character are going on, and the chief has an opportunity to set his seal on them. Provided the chief has anything in himself to offer, here is his chance to turn out every year a group of selected men who shall represent his ideas and his clinic all over the country, and it is to be hoped that they will gradually affect the type of medicine in many remote communities. Again, this cannot be done as successfully through subordinates as it is if the chief undertakes to keep himself close to the interns. It takes time, but it seems to me that the results are well worth striving for.

This does not mean that all the subordinate members of the staff, including (with rare exceptions) those whose time is largely devoted to research, should not undertake direct responsibilities for the ward routine. I believe, indeed, that such responsibilities form a very valuable part of their training—so much so that the men must be made to assume them even if they are reluctant and prefer to stick to their research. This can usually be arranged for in the vacations and at such times as their research is not at a critical point. It is very easy for a man to get absorbed in his own little

problem, or in the somewhat larger field of which this is a corner, and to neglect the opportunity to get a training in internal medicine. At the present time there are many men who have been associated with American clinics for several years and who have had only the narrowest contact with medicine as a whole. Few of the men who become members of our departments of medicine will become stimulating teachers and still fewer will ever do important research work, but almost all can be made into first class clinicians. This is in itself a very important contribution, for the majority of the staff are eventually going to practice medicine, and the chief should do his best to see to it that every one who has been attached to his staff for three or four years has at least made a good start at becoming a high grade internist, as well as being an expert in some narrow field of medicine. The necessary training is, of course, best attained by assuming actual responsibility in general wards, and very often the men have to be driven, almost by force, from their own laboratories to take up what is sometimes spoken of a little casually or even cynically as "ward routine." Here, again, the example of the chief is vital.

One further point with regard to the general

ward. I have spoken of it as the backbone of the clinic because it represents general practice, which is the backbone of the medical profession. It is proper, therefore, that it should be the meeting place of those who devote themselves to different fields of medicine; and here the active full-time practitioner should come in contact with the man who is devoting most of his time to research and teaching. In clinical teaching the active practitioner of internal medicine plays a very important rôle, and he should receive positions and titles corresponding in dignity to the contribution he makes. These conventional details must not be neglected, for they help to make clear to the staff that the work of the practitioner is going to be completely recognized by the school. In my own mind there is no question but that the man whose practice is largely outside the hospital can bring something to students and staff that is difficult for the man whose practice is largely inside the hospital to bring, and several years of experience have confirmed this view. On the other hand, the practitioner should also get a stimulus from contact with the research which the hospital group is carrying on. In the Boston City Hospital Clinic, representatives of the two types of men alternate in making ward rounds

during the school term and, as far as possible, the same plan is continued by the younger men in the summer. Curiously enough, it has seemed to me more difficult to find enthusiastic and competent clinical teachers among the practitioners than in the hospital group.

Research should always be regarded as one of the activities of teaching clinics. Such clinics are usually relatively well equipped in the way of laboratories and endowment; and the very fact that the laboratories are closely associated with the wards gives an exceptional opportunity to the staff and thus places a responsibility on its members for the investigation of disease. It is fair to assume that a large part of the progress that will be made in our knowledge of the diagnosis and treatment of disease will come through the medical clinics, even if much of the fundamental work on which this practical advance is based is the outcome of investigations which have been carried on in the laboratories of so-called pure science. (As a matter of fact, it has interested me recently to see how frequently the clinical investigator, studying a problem in disease in man, is forced to go back and tackle the most fundamental aspects of it—

anatomic, physical, chemical—because the necessary facts have not been made available by workers who specialize in these various fields.) Research should also play a part in the clinic because it is a type of training which develops critical judgment; and even a limited experience in a research problem, undertaken under skilled guidance, is a valuable discipline for every one, including the man who subsequently goes into practice, for among other things it teaches him to estimate the worth of the publications of other men. Finally, it is generally true that the investigator is a more stimulating teacher than the man who is not actively laboring at the forefront of scientific advance.

By what members of the staff should active research be carried on? The strictly clinical group, engaged largely in outside practice, should be encouraged, but, of course, one cannot expect that they will produce much, as they do not have the time or the sense of leisure that is necessary for research. If any of them produce an occasional clinical study, they are to be congratulated. This must not be considered to be their field. The younger members of the hospital staff, residents and assistants, should all take part in some re-

search problem, but as they are apt to be almost wholly untrained they can be regarded only as extra hands at the beginning. They receive a training that is of utmost value to them personally, particularly if they are, as they should be, under the personal supervision of an experienced investigator; but one cannot anticipate that they will make important contributions. Experience has made it clear to me that one of our common errors is to expect too much of these men, in that we allow them to work too independently both for the good of their own training and for their productiveness. With rare exceptions few men are qualified, either technically or intellectually, to carry on clinical research of any great importance until they have had several years of experience in laboratory work and in the study of disease in the wards. This means that it is only the older members of the medical staff who may be expected to undertake continuous problems of any particular significance and it accentuates the importance of providing adequate salaries for assistants who are five or ten years out of school. These are the men who can plan for prolonged periods of time devoted to one problem, and they will also be the men to guide and train the recent graduates. Of course, even among

the selected groups of older members of the staff there will be few who will produce research that is important in itself, for in any field high grade investigators are unusual. In general, one can only expect good solid research of a more or less routine character. Such work is, however, not to be depreciated, as it plays an important part in keeping up the tone of the clinic and in the long run advance in our knowledge of disease probably depends as much on this type of conscientious, honest investigation as on the gifted researches of brilliant geniuses.

What is to be expected of the chief in the way of research? One hears a great deal about research ability as a qualification for the professor of medicine and about the necessity of his carrying on research personally while he occupies the position. Capacity for high grade research is so rare a quality in itself that it will always be almost impossible to find it combined with the other qualifications demanded of a professor of medicine. Ability to do good, conscientious, independent work, interest in stimulating and assisting others to carry on research, and an appreciation of the rôle that research plays in the medical clinic are more important than great personal research

genius. The professor must keep in close touch with the work of his staff, guiding where he can, suggesting and encouraging, and he should always try to keep up some independent work if only for his own intellectual satisfaction, so that he may set an example to the staff and may have some little field in which he excels his assistants. Even if he had great ability as an investigator he could not expect to accomplish much, as the multifarious demands on his time make it almost impossible to obtain the sense of leisure which thoughtful work requires. Indeed, I feel that if a man really has this rare gift he ought not to be the head of a department of medicine lest his talent be wasted.

One may reasonably question whether the large proportion of the budget of the department of medicine that is devoted to research and the great stress that has been laid on research ability in the selection of teachers is entirely justified, when one considers that much of the research output is of a routine nature and that really significant research is unusual. My personal feeling is that it is justified, although I think the pendulum has swung too far in the matter of choice of professors. Here there is a very unfortunate tendency to pay too little attention to broad clinical experience, some-

thing that is acquired only by many years of hard work and too much attention to research ability, or, what is worse, to the possible development of research ability in some promising young man. The publication of a number of good papers does not really indicate any marked capacity for investigation, and such papers certainly offer limited evidence of ability to run a department of medicine. Even in the preclinical laboratories and research institutes the proportion of research that is very noteworthy is not always particularly high, and, when one considers all the other functions required of the men in the department of medicine, I think that we may be rather proud of what they are accomplishing.

There is a common tendency to attempt to select assistants in a department of medicine whose training represents the different preclinical sciences, physiology, organic chemistry, physical chemistry, physics, bacteriology, so that one may have a well rounded clinic. There is obviously much to be said in favor of such a plan as it helps to bring together an experienced group of "scientists"; but there is also an inherent practical danger which I am sure we all have observed and to which more attention should be paid. These men, thoroughly

trained in one direction, quite naturally look for their research problems in the fields in which they are trained. They seek the problem to suit their particular tools. This must necessarily be the attitude of workers in a fundamental science when they attempt to study a clinical problem, and this may explain why they often are not more successful in formulating and working out problems involving a knowledge of disease in man. The approach of the internist to the study of disease in man should be quite different. He is, first of all, absorbed by an interest in the problem and then seeks the type of tools necessary to solve it. This is the intellectual, rather than the technical, method of approach. Once given an absorbing passion for the solution of a clinical problem, the man who has a good, general scientific training can usually acquire in a few months or in a year or so enough of any of the fundamental sciences to enable him to tackle it. The clinical investigator, with his knowledge of disease in man, thus finds the problem first and determines the practical way to study it, turning to his colleagues in the fundamental sciences especially for technical experience. We often discuss what the difference is between the function and opportunity of the man who is pri-

marily a "scientist" working on a clinical investigation, and the man who is primarily an "internist" using methods of exactly the same highly refined nature, and also working on the same general type of investigation. The real difference is, I think, to be found in the point of view. The medical clinic should encourage its staff to use methods of any sort, no matter how difficult or specialized, that are needed for the solution of their immediate problems; but their first interest should center about the general subject of disease in man. The first interest of the "scientist," on the other hand, is in the development of his own particular field. Each has his proper rôle, but in the medical clinic it is better to have an inspired "internist" than a skilled "chemist."

The administration of a department of medicine, with its complicated relationships and responsibilities toward a large group of various types of men, to the students of three classes, to interns, to the medical school administration with all its subdivisions (wards, social service, outpatient department, dietetics and other clinical departments), to patients and their families, and to laboratories, represents a problem which is unapproached in any other department of the medical school with

the possible exception of that of surgery. One frequently hears it said that if the chief is a good administrator he will divide all this work up and put it on the shoulders of his assistants. To a certain extent this is possible and is, indeed, absolutely necessary; but experience has shown me that beyond a certain point it is unwise to do so and that the major part of the administrative responsibility must be assumed by the chief. The representatives of the medical school, the superintendent of the hospital, the chief of the roentgen-ray department, the assistant in charge of the chemical laboratory, all want to deal directly with the chief; and the smooth running of the clinic demands that they shall. But to my mind it is not only to these dignitaries that the chief must leave his door ajar. How often one finds interns and students lurking outside the office, waiting to catch the chief as he hurries by. "Can I have five minutes with you, sir?" You let him in, sit down, and find that what he has approached so modestly is the problem of his whole career; and who can tell whether it may not be a career with very significant possibilities? Is there, on the whole, anything more important than giving advice about a man's life? Of course, a first class administrator might say,

"Tell him to return next Tuesday at 2:30, at the time appointed for such conferences." All right; but usually the youth has worked himself up and is full of his problems now, and it is *now* that you can help him most. We hear a great deal about the necessity of the professor "closing his door" and "protecting himself." I fear that some of this "protection" is made necessary by the fact that our professors are apt to be rather inexperienced, and they have to get their training after they get their job. The real question is whether the professor ought to devote himself to looking after his own career or whether he ought to regard as his first duty that of stimulating, helping and advancing his assistants. Of course, this is largely a question of personality; but there are so few men whose research ability is extraordinarily valuable (and, as I have said, they ought not to be professors of medicine) that I believe in general in the "open door policy." This is, at any rate, the policy that best suits my temperament and capacity. I have always attempted to keep some of my own work going, partly through assistants, and, so far as I can, with my own hands (although this comes more and more to what can be done in the summer vacation) for this is what keeps me alive intel-

lectually and is where I get my real fun. On the other hand, I feel that probably I accomplish most in the long run, not by protecting myself too closely, but by accepting as my major function that of helping my students and assistants. Much greater contributions to the advancement of medicine will come from the training of these men than through my own individual efforts.

In all this lengthy letter I do not think I have once used the phrase "full-time" as applied to a clinic or a teacher. This is partly because I have become as tired of discussions of "full-time" teaching as I am of discussions of the Eighteenth Amendment, and partly because I do not think the issue is any longer of importance. There was a time when discussion of the system had a distinctly healthy effect on the teaching of medicine in America; but the whole situation is altered. A complete "full-time" system is impossible from an economic point of view, even if it were desirable medically, which I do not think it is. Experience has made it perfectly clear that the men who are in successful outside practice have something very definite and important to contribute to the teaching, and, as already indicated, they must be regarded as an integral part of the teaching service

and receive proper recognition in the way of titles, salaries and clinical opportunities. I am, moreover, also convinced that it is not desirable to have any hard and fast rule as to the members of the hospital staff having private patients. For many, if not for all, it is desirable that they should have a few patients of their own, with whom they have the same relations that one does in outside practice. Occasional consultations, even outside the hospital, office practice and a few private patients in the hospital form the basis of a valuable experience for the teacher and investigator; but, of course, his other work will not allow him to assume the care of sick patients in their homes. There is no question in my own mind that I am a much better teacher for having had a limited number of such patients in recent years. These are the patients to whom I talk at length personally, and they are apt to be the cases that stick in my mind, so that I refer to them continually in talking to students. One can always say that the same thing may be done as well if the patients belong to the clinic and if, for instance, their fees are paid to the clinic; but I fear I do not agree to this. If they had been the patients of the clinic I should have had most of the work done by my assistants

and I should have missed exactly that personal relationship with patients which many people say cannot be obtained in a hospital. If, however, I have been continually confronted with these personal relationships of practice, even though it be with few individuals at a time, it is much easier for me to keep accentuating their importance in the course of my work in the ward. In all of this, moreover, I do not believe that I am very different or more sordid in attitude than most men. It is not wholly a question of to whom the fees are paid (often there are no fees), although this certainly is a factor in establishing and maintaining the personal bond. The main point is that the patient has sought you or me personally and not the hospital.

In the last analysis, the whole problem resolves itself into what kind of men you select for the hospital staff. If they do the type of work they are expected to do, they can never see more than a very few private patients—fewer, indeed, than come now to the private wards of some “full-time” clinics. If they want to see more patients they must be transferred to the clinical staff. Practically, the issue has seemed to me to solve itself without presenting any great difficulties, and with-

out resorting to an overorganization that limits the freedom of the individual. What we want is less of the system and law that kills and more of the spirit that gives life.

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